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Docket No. 58069(47126)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: G. Cevc Confirmation No.: 7718

U.S.S.N.: 09/887,493 Group No.: 1654

FILED: June 22, 2001 Examiner: S. D. Coe

FOR: IMPROVED FORMULATION FOR TOPICAL NON-INVASIVE  
APPLICATION IN VIVO

Mail Stop: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 02209-9169

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CERTIFICATE OF EXPRESS MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as Express Mail, Label No. EV 437 825 126 US addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: July 30, 2004

By:

Judy Daley

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Sir:

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

In accordance with the provisions of 37 C.F.R. §§1.56 and 1.97, Applicants herewith submit the publications and/or patents shown on the attached form PTO-1449, for consideration by the Examiner in connection with the examination of the above-identified patent application.

**REMARKS**

In accordance with the provisions of 37 C.F.R. §1.97, this statement is being filed:

- \_\_\_\_\_ (1) within three (3) months of the Filing Date or **before the mailing date of the First Office Action** on the merits; or
- \_\_\_\_\_ (2) within three months of the mailing date of the Search Report issued by the **PCT Patent Office**; or

- \_\_\_\_\_ (3) after the period defined in (1) but before the mailing date of a **Final Rejection** or **Notice of Allowance**, and the requisite Certification or fee under Rule 1.17(p), namely **\$180.00**, is included herein; or
- X   (4) after the mailing date of a **Final Rejection** or **Notice of Allowance** but before the payment of the **Issue Fee**, and the requisite Certification, petition, and petition fee are included herein.

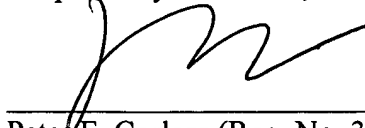
It is respectfully requested that each of the documents shown on the attached form(s) PTO-1449 be made of record in this application. Copies of these documents (CHECK ONE):

- X   are enclosed herewith; or
- \_\_\_\_\_ have been cited in the parent application, and are thus not being resubmitted herein.

#### FEE AUTHORIZATION

Enclosed herewith is a check in the amount of \$180.00 for submission of these cited references. Should any additional fees associated with the submission be required, the Commissioner is authorized to charge the missing fee to our Deposit Account, No. 04-1105. Any overpayments should be credited to said Deposit Account.

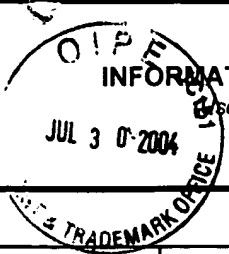
Respectfully submitted,



Date: July 30, 2004

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|  <b>INFORMATION DISCLOSURE CITATION</b><br><small>(Use several sheets if necessary)</small>   |    |  |            | ATTY DOCKET NO.<br>58069 (47126) |       | SERIAL NO.<br>09/887,493 |                               |    |
|--|----|--|------------|----------------------------------|-------|--------------------------|-------------------------------|----|
|  |    |  |            | Applicant(s): G. CEVC            |       |                          |                               |    |
|  |    |  |            | FILING<br>June 22, 2001          |       | GROUP<br>1654            |                               |    |
| <b>U.S. PATENT DOCUMENTS</b>   |    |  |            |                                  |       |                          |                               |    |
| *EXAMINER<br>INITIAL   |    | DOCUMENT NUMBER  | DATE       | NAME                             | CLASS | SUBCLASS                 | FILING DATE<br>IF APPROPRIATE |    |
|  | AA | 5,607,692  | 04/04/1997 | Ribier et al.                    | 424   | 450                      |                               |    |
|  | AB | 5,958,379  | 28/09/1999 | Regenold et al.                  | 424   | 47                       |                               |    |
|  | AC | 4,944,948  | 31/07/1990 | Uster et al.                     | 424   | 450                      |                               |    |
|  | AD | 4,911,928  | 27/03/1990 | Wallach                          | 424   | 450                      |                               |    |
|  | AE | 5,238,613  | 24/08/1993 | Anderson                         | 264   | 22                       |                               |    |
|  | AF | Re. 33,273   | 24/07/1990 | Speaker                          | 210   | 639                      |                               |    |
|  | AG | 4,619,794  | 28/10/1986 | Hauser                           | 264   | 4.1                      |                               |    |
|  | AH | 4,954,345  | 04/09/1990 | Müller                           | 424   | 450                      |                               |    |
|  | AI | 4,937,078  | 26/06/1990 | Mezei et al.                     | 424   | 450                      |                               |    |
|  | AJ | 4,921,706  | 01/05/1990 | Roberts et al.                   | 424   | 450                      |                               |    |
|  | AK | 5,741,515  | 21/04/1998 | Ciceri et al.                    | 424   | 450                      |                               |    |
| <b>FOREIGN PATENT DOCUMENTS</b>  |    |  |            |                                  |       |                          |                               |    |
|  |    | DOCUMENT NUMBER  | DATE       | COUNTRY                          | CLASS | SUBCLASS                 | TRANSLATION                   |    |
|  |    |  |            |                                  |       |                          | YES                           | NO |
|  | BA | 07-324029  | 12.12.1995 | JP                               |       |                          |                               |    |
|  | BB | 0 298 280  | 14.06.1988 | EP                               |       |                          |                               |    |
|  | BC | 0 393 707  | 20.04.1990 | EP                               |       |                          |                               |    |
|  | BD | 1 143 656  | 29.03.1983 | CA                               |       |                          |                               |    |
|  |    |  |            |                                  |       |                          |                               |    |
| <b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>  |    |  |            |                                  |       |                          |                               |    |
|  | CA | G. Cevc et al., Transdermal drug carriers: basic properties, optimization and transfer efficiency in the case of epicutaneously applied peptides, <i>J. Contr. Rel.</i> , 36, pp. 3-16, 1995 |            |                                  |       |                          |                               |    |
|  | CB | S. Yuan, et al., Cationic Liposome and Gene Transfer, <i>Progress in Physiological Science</i> , 28(2), pp. 163-165, 1997  |            |                                  |       |                          |                               |    |
| EXAMINER   |    |  |            | DATE CONSIDERED                  |       |                          |                               |    |
| <small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small> |    |  |            |                                  |       |                          |                               |    |

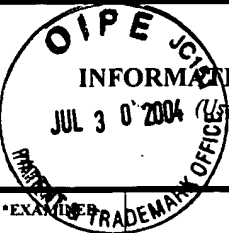


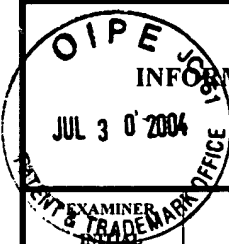


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|---|----|--------------------|------------|-------------------------------|-------|---------------------------|-------------------------------|
| FORM PTO-1440<br>INFORMATION DISCLOSURE STATEMENT |    |                    |            | DOCKET NO:<br>58069 (47126)   |       | SERIAL NO.:<br>09/887,493 |                               |
|   |    |                    |            | APPLICANT: G. CEVC            |       |                           |                               |
|   |    |                    |            | FILING DATE:<br>June 22, 2001 |       | GROUP NO.<br>1654         |                               |
| UNITED STATES PATENT DOCUMENTS                    |    |                    |            |                               |       |                           |                               |
| EXAM.<br>INITIALS                                 |    | DOCUMENT<br>NUMBER | DATE       | NAME                          | CLASS | SUBCLASS                  | FILING DATE<br>IF APPROPRIATE |
|   |    |                    |            |                               |       |                           |                               |
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| FOREIGN PATENT DOCUMENTS                          |    |                    |            |                               |       |                           |                               |
|   |    | DOCUMENT<br>NUMBER | DATE       | COUNTRY                       | CLASS | SUBCLASS                  | TRANSLATION<br>YES/NO         |
|   | BI | WO 98/17255        | 30.04.1998 | PCT                           |       |                           |                               |
|   | BJ | WO 98/30215        | 16.07.1998 | PCT                           |       |                           |                               |
|   | BK | WO 98/33483        | 06.08.1998 | PCT                           |       |                           |                               |
|   | BL | WO 88/07362        | 06.10.1988 | PCT                           |       |                           |                               |
|   | BM | WO 98/06750        | 19.02.1998 | PCT                           |       |                           |                               |
|   | BN | WO 91/04013        | 04.04.1991 | PCT                           |       |                           |                               |
|   | BO | WO 92/05771        | 16.04.1992 | PCT                           |       |                           |                               |
|   | BP | WO 93/19736        | 14.10.1993 | PCT                           |       |                           |                               |
|   | BQ | WO 93/19737        | 14.10.1993 | PCT                           |       |                           |                               |
| EXAMINER:   |    |                    |            |                               | DATE: |                           |                               |



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|---|-----|----------------------------|-------------|--------------------------------------|--------------|----------------------------------|---------------------------------------|
| <b>FORM PTO-1449</b>                    |     |                            |             | <b>DOCKET NO:</b><br>58069 (47126)   |              | <b>SERIAL NO.:</b><br>09/887,493 |                                       |
| <b>INFORMATION DISCLOSURE STATEMENT</b> |     |                            |             | <b>APPLICANT: G. CEVC</b>            |              |                                  |                                       |
|   |     |                            |             | <b>FILING DATE:</b><br>June 22, 2001 |              | <b>GROUP NO.</b><br>1654         |                                       |
| <b>UNITED STATES PATENT DOCUMENTS</b>   |     |                            |             |                                      |              |                                  |                                       |
| <b>EXAM.<br/>INITIALS</b>               |     | <b>DOCUMENT<br/>NUMBER</b> | <b>DATE</b> | <b>NAME</b>                          | <b>CLASS</b> | <b>SUBCLASS</b>                  | <b>FILING DATE<br/>IF APPROPRIATE</b> |
|   |     |                            |             |                                      |              |                                  |                                       |
| <b>FOREIGN PATENT DOCUMENTS</b>         |     |                            |             |                                      |              |                                  |                                       |
|   |     | <b>DOCUMENT<br/>NUMBER</b> | <b>DATE</b> | <b>COUNTRY</b>                       | <b>CLASS</b> | <b>SUBCLASS</b>                  | <b>TRANSLATION<br/>YES/NO</b>         |
|   | BR  | WO 90/09782                | 07.09.1990  | PCT                                  |              |                                  |                                       |
|   | BS  | WO 87/01938                | 09.04.1987  | PCT                                  |              |                                  |                                       |
|   | BT  | 3,713,494                  | 29.10.1987  | DE                                   |              |                                  |                                       |
|   | BU  | 3,016,976                  | 13.11.1980  | DE                                   |              |                                  |                                       |
|   | BV  | 1,289,420                  | 24.09.1991  | CA                                   |              |                                  |                                       |
|   | BW  | 2,052,164                  | 26.09.1992  | CA                                   |              |                                  |                                       |
|   | BX  | 1,740,283                  | 28.07.1983  | AU                                   |              |                                  |                                       |
|   | BY  | 0,674,913                  | 04.10.1995  | EP                                   |              |                                  |                                       |
|   | BZ  | 0,704,206                  | 03.04.1996  | EP                                   |              |                                  |                                       |
|   | BAA | 0,475,160                  | 18.03.1992  | EP                                   |              |                                  |                                       |
|   | BBB | 0,707,847                  | 24.04.1996  | EP                                   |              |                                  |                                       |
|   | BCC | 0,280,492                  | 31.08.1988  | EP                                   |              |                                  |                                       |
|   | BDD | 0,102,324                  | 07.03.1984  | EP                                   |              |                                  |                                       |
|   | BEE | 0,224,837                  | 24.11.1986  | EP                                   |              |                                  |                                       |
|   | BFF | 0,211,647                  | 25.02.1987  | EP                                   |              |                                  |                                       |
|   |     |                            |             |                                      |              |                                  |                                       |
| <b>EXAMINER:</b>                        |     |                            |             |                                      | <b>DATE:</b> |                                  |                                       |

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|  <p><b>INFORMATION DISCLOSURE CITATION</b><br/>(Use several sheets if necessary)</p>   |   | Docket Number (Optional)<br><b>58069 (47126)</b> |  | Application Number<br><b>09/887,493</b> |  |
|   |   | Applicant(s)<br><b>G. CEVC</b>                   |  |   |  |
|   |   | Filing Date<br><b>June 22, 2001</b>              |  | Group Art Unit<br><b>1654</b>           |  |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 10%;"> <p>*EXAMINER INITIAL</p> </div> <div style="width: 90%;"> <p><b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)</p> </div> </div>     |   |  |  |   |  |
| CC  | G. Cevc, Transfersomes, Liposomes and Other Lipid Suspensions on the Skin: Permeation Enhancement, Vesicle Penetration, and Transdermal Drug Delivery, <i>Crit. Rev. Ther. Drug Carrier Syst.</i> , 13(3&4), pp. 257-388, 1996  |  |  |   |  |
| CD  | A. Klibanov, et al., Activity of amphipathic poly(ethylene glycol) 5000 to prolong the circulation time of liposomes depends on the liposome size and is unfavorable for immunoliposome binding to target, <i>BBA</i> , 1062, pp. 141-148, 1991   |  |  |   |  |
| CE  | Benner, "The Human Body, The Wonderwork of the Human Body, Structure, Functions, Interactions, Processes and Mechanisms" Weltbild GmbH Augsburg (1995)  |  |  |   |  |
| CF  | Serva, FEINBIOCHEMICA FUR FORSCHUNG for <i>Serva Feinbiochemica GmbH &amp; Co.</i> (1986/1987)  |  |  |   |  |
| CG  | Clark, J.M., Jr., "Experimental Biochemistry" Biochemistry Division, Department of Chemistry, University of Illinois, pp. 47-48   |  |  |   |  |
| CH  | Patel, H.M. "Liposomes as a Controlled-release System" Biomedical Society Transactions 609th Meeting, Leeds, pp. 513-516  |  |  |   |  |
| CI  | Fieser, L.F., et al. "Organische Chemie" <i>Hans Ruprecht Hensel, 2nd revised edition, Verlag Chemie GmbH, Weinheim/Bergstr</i> (1968)  |  |  |   |  |
| CJ  | Fluka Chemika-BioChemika Catalogue 16 (1988/89)   |  |  |   |  |
| CK  | Roeding, J. "Liposomes and Niosomes in Pharmacy and Cosmetic State of the Art Prospects, Techniques of Visualizing Vesicular Systems, Interaction of Liposomes with the Skin" <i>Training Course No. 105 from May 14 to 16, 1990, MARITIM Hotel Nurnberg, Frauentorgraben 11, 8500 Nurenbwerg</i> |  |  |   |  |
| CL  | L. Lobbbecke, et al., "Effects of Short-Chain Alcohols On the Phase Behavior And Interdigitation Of Phosphatidylcholine Bilayer Membranes," <i>Biochimica et Biophysica Acta</i> , 1237, pp. 59-69, 1995  |  |  |   |  |
| CM  | R. Singh, et al., "Liposomally Encapsulated Diclofenac For Sonophoresis Induced Systemic Delivery," <i>J. Microencapsulation</i> , Vol. 12, No. 2, pp. 149-154, 1995  |  |  |   |  |
| CN  | T. Henmi, et al., "Application of an Oily Gel Formed by Hydrogenated Soybean Phospholipids as a Percutaneous Absorption-Type Ointment Base," <i>Chem. Pharm. Bull</i> , 42(3), pp. 651-655, 1994  |  |  |   |  |
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| <p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p> |   |  |  |   |  |

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|  |    | Filing Date<br><b>June 22, 2001</b>  |                 | Group Art Unit<br><b>1654</b>           |  |
| <b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)  |    |  |                 |   |  |
|  | CO | M. Foldvari, et al., "Dermal Drug Delivery by Liposome Encapsulation: Clinical and Electron Microscopic Studies," <i>J. Microencapsulation</i> , Vol. 7, No. 4, pp. 479-489, 1990  |                 |   |  |
|  | CP | M. Foldari, "In Vitro cutaneous and Percutaneous Delivery and in Vivo Efficacy of Tetracaine from Liposomal and Conventional Vehicles," <i>Pharmaceutical Research</i> , Vol. 11, No. 11, 1994   |                 |   |  |
|  | CQ | M. Foldari, "Effect of Vehicle on Topical Liposomal Drug Delivery: Petrolatum Bases," <i>J. Microencapsulation</i> , Vol. 13, No. 5, pp. 589-600, 1996   |                 |   |  |
|  | CR | M.E. Planas, et al., "Noninvasive Percutaneous Induction of Topical Analgesia by a New Type of Drug Carrier, and Prolongation of Local Pain Insensitivity by Anesthetic Liposomes," <i>Anesth. Analg.</i> , 75, pp. 615-621, 1992  |                 |   |  |
|  | CS | H. Peters, et al., "Pharmacodynamics of a Liposomal Preparation for Local Anaesthesia," <i>Arzneim.-Forsch./Drug Res.</i> , 45(II), Nr. 12, 1995   |                 |   |  |
|  | CT | I. Stoye, et al., "Transformation of a Liposomal Dispersion Containing Ibuprofen Lysinate and Phospholipids into Mixed Micelles - Physico-chemical Characterization and Influence on Drug Permeation through Excised Human Stratum Corneum," <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 46, pp. 191-200, 1998 |                 |   |  |
|  | CU | J. Schramlova, et al., "The Effect of an Antiphlogistic Incorporated in Liposomes on Experimentally Induced Inflammation," <i>Folia Biologica (Praha)</i> , 43, pp. 195-199, 1997  |                 |   |  |
|  | CV | G. Cevc, "Drug Delivery Across the Skin," <i>Exp. Opin. Invest. Drugs</i> , 6(12), pp. 1887-1937, 1997   |                 |   |  |
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| FORM PTO-1449                    |     |  | DOCKET NO:<br>58069 (47126)   |         | SERIAL NO.:<br>09.887,493 |          |                               |
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| UNITED STATES PATENT DOCUMENTS   |     |  |                               |         |                           |          |                               |
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|                                  |     |  |                               |         |                           |          |                               |
| FOREIGN PATENT DOCUMENTS         |     |  |                               |         |                           |          |                               |
|                                  |     | DOCUMENT<br>NUMBER   | DATE                          | COUNTRY | CLASS                     | SUBCLASS | TRANSLATION<br>YES.NO         |
|                                  |     |  |                               |         |                           |          |                               |
| OTHER DOCUMENTS                  |     |  |                               |         |                           |          |                               |
|                                  | CW  | G. CEVC et al., Transfersomes-mediated transepidermal delivery improves the regio-specificity and biological activity of corticosteroids in vivo, <i>Journal of Controlled Release</i> 45 (1997) 211-226                                 |                               |         |                           |          |                               |
|                                  | CX  | V.M. KNEPP et al., CONTROLLED DRUG RELEASE FROM A NOVEL LIPOSOMAL DELIVERY SYSTEM II. TRANSDERMAL DELIVERY CHARACTERISTICS, <i>Journal of Controlled Release</i> 12 (1990) March, No. 1, Amsterdam, NL, pp. 25-30                        |                               |         |                           |          |                               |
|                                  | CY  | C.E. Price, "A REVIEW OF THE FACTORS INFLUENCING THE PENETRATION OF PESTICIDES THROUGH PLANT LEAVES" on I.C.I. Ltd., Plant Protection Division, Jealott's Hill Research Station, Bracknell, Berkshire RG12 6EY, U.K., pp. 237-252        |                               |         |                           |          |                               |
|                                  | CZ  | K. Karzel and R. K. Liedtke, "MECHANISMEN TRANSKUTANER RESORPTION" on <i>Grandlagen.Basics</i> , pp. 1487-1491   |                               |         |                           |          |                               |
|                                  | CAA | Michael Mezei, "LIPOSOMES AS A SKIN DRUG DELIVERY SYSTEM" 1985 Elsevier Science Publishers B.V. (Biomedical Division), pp. 345-358   |                               |         |                           |          |                               |
|                                  | CBB | Adrienn Gesztes and Michael Mezei,, "TOPICAL ANESTHESIA OF THE SKIN BY LIPOSOME-ENCAPSULATED TETRACAINE" on <i>Anesth Analg</i> , 1988; 67: pp. 1079-81  |                               |         |                           |          |                               |
|                                  | CCC | A. Helenius, et al, "SOLUBILIZATION OF MEMBRANES BY DETERGENTS", <i>Biochimica et Biophysica Acta</i> , 415 (1975) 29-79   |                               |         |                           |          |                               |
|                                  | CDD | Phillip G. Green, et al., "IN VITRO AND IN VIVO ENHANCEMENT OF SKIN PERMEATION WITH OLEIC AND LAURIC ACIDS" on <i>International Journal of Pharmaceutics</i> , 48 (1988), pp. 103-111  |                               |         |                           |          |                               |
|                                  | CEE | Guia M. Golden et al., "ROLE OF STRATUM CORNEUM LIPID FLUIDITY IN TRANSDERMAL DRUG FLUX" on <i>Journal of Pharmaceutical Sciences</i> , Vol. 76, No. 1, January 1987, American Pharmaceutical Association, pp. 25-28                     |                               |         |                           |          |                               |
|                                  | CFF | Bruce J. Aungst et al., "ENHANCEMENT OF NALOXONE PENETRATION THROUGH HUMAN SKIN IN VITRO USING FATTY ACIDS, FATTY ALCOHOLS, SURFACTANTS, SULFOXIDES AND AMIDES" on <i>International Journal of Pharmaceutics</i> , 33 (1986) pp. 225-234 |                               |         |                           |          |                               |



|   |     |  |                                      |                |                                  |                 |                                   |
|---|-----|--|--------------------------------------|----------------|----------------------------------|-----------------|-----------------------------------|
| <b>FORM PTO-1449</b>                    |     |  | <b>DOCKET NO:</b><br>58069 (47126)   |                | <b>SERIAL NO.:</b><br>09.887,493 |                 |                                   |
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| <b>UNITED STATES PATENT DOCUMENTS</b>   |     |  |                                      |                |                                  |                 |                                   |
| <b>EXAM. INITIALS</b>                   |     | <b>DOCUMENT NUMBER</b>   | <b>DATE</b>                          | <b>NAME</b>    | <b>CLASS</b>                     | <b>SUBCLASS</b> | <b>FILING DATE IF APPROPRIATE</b> |
|   |     |  |                                      |                |                                  |                 |                                   |
| <b>FOREIGN PATENT DOCUMENTS</b>         |     |  |                                      |                |                                  |                 |                                   |
|   |     | <b>DOCUMENT NUMBER</b>   | <b>DATE</b>                          | <b>COUNTRY</b> | <b>CLASS</b>                     | <b>SUBCLASS</b> | <b>TRANSLATION YES.NO</b>         |
|   |     |  |                                      |                |                                  |                 |                                   |
| <b>OTHER DOCUMENTS</b>                  |     |  |                                      |                |                                  |                 |                                   |
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| UNITED STATES PATENT DOCUMENTS   |     |  |                               |         |                           |          |                               |
| EXAM.<br>INITIALS                |     | DOCUMENT<br>NUMBER   | DATE                          | NAME    | CLASS                     | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
| FOREIGN PATENT DOCUMENTS         |     |  |                               |         |                           |          |                               |
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